

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004778**Date Inspected:** 06-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2200**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**Location:** Changxing Island, Shanghai

<b>CWI Name:</b>	N/A			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>

**Bridge No:** 34-0006**Component:** Deck panels**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) representative was present for observations relative to fabrication performed by Zhenhua Port Machinery Company (ZPMC) for the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Changxing Island, in Shanghai, China. While on site the QA Inspector noted the following:

## Deck Panel DP271-001

1. The QA Inspector performed Ultrasonic Testing (UT) on the Partial Joint Penetration (PJP) welds made between the U-ribs (three ribs, two welds per rib six total welds) and flat plate members of the assembly deck panel identified as DP271-001. The QA Inspector performed the ultrasonic testing using the gate to gate method on the tack weld areas only a total of 168 tack welds were made on the six welds. The QA Inspector performed the testing on the weld number one through six. The QA Inspector observed several linear indications that appeared to be suspected planar discontinuities located at random locations on the welds and the indications were marked on the steel for Phased-Array Ultrasonic Testing (PAUT) investigation that will be performed at a later time. The QA Inspector used the ZPMC ultrasonic testing procedure identified as "UT 04-012024 PJP Rib Weld", Ultrasonic Testing for the Detection of Suspected Planar Discontinuities (Cracks) in PJP Welds for the evaluation of observed indications. The QA Inspector did not complete the testing on these welds at this location on this date. The QA Inspector notified Task Leader Albert Carreon of indications observed and the status of completed testing.

## Deck Panel DP244-001



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## WELDING INSPECTION REPORT

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2. The QA Inspector performed UT on the Partial Joint Penetration (PJP) welds made between the U-ribs (five ribs, two welds per rib ten total welds) and flat plate members of the assembly deck panel identified as DP244-001. The QA Inspector performed the ultrasonic testing using the gate to gate method on the tack weld areas only a total of forty tack welds were tested by the QA Inspector on the five welds. The QA Inspector continued the testing on these welds started by other QA Inspector during the early shift. The QA Inspector observed a few linear indications that appeared to be suspected planar discontinuities located at random locations on the welds and the indications were marked on the steel for PAUT investigation that will be performed at a later time. The QA Inspector used the ZPMC ultrasonic testing procedure identified as "UT 04-012024 PJP Rib Weld", Ultrasonic Testing for the Detection of Suspected Planar Discontinuities (Cracks) in PJP Welds for the evaluation of observed indications. The QA Inspector completed the testing on these welds at this location on this date. Please note the total UT gate to gate was completed on the total tack welds on this deck panel. The QA Inspector notified Task Leader Albert Carreon of indications observed and the status of completed testing.

### Summary of Conversations:

As noted in the body of the report above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Peter Dautermann, (1500) 129-9593, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Medina,Ricardo	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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